# Appendix A: On-Line Mitigation Planning Resources

(as of January 2003)

## **General Mitigation Information**

#### **Hazard Mitigation in Massachusetts**

Provides general information about hazard mitigation and what it is. Includes links to the State Hazard Mitigation Plan, the Flood Hazard Mitigation Guidebook and various other resources. http://www.state.ma.us/dem/programs/mitigate/index.htm

#### **FEMA Mitigation Grant Programs**

Provides an overview of the Pre-Disaster Mitigation (PDM) Program with links to other mitigation resources.

http://www.fema.gov/fima/mitgrant/shtm#pdm

#### **National Flood Insurance Program**

Provides information on the National Flood Insurance Program. <a href="http://www.fema.gov/nfip/">http://www.fema.gov/nfip/</a>

# **Regulatory Information**

The Disaster Mitigation Act of 2000 (DMA2000) / Public Law 106-390 – October 30, 2000 PDF version http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106\_cong\_public\_laws&docid=f:publ390.106.pdf

The Interim Final Rule – Federal Register Part III, 44 CFR Parts 201 and 206, "Hazard Mitigation Planning and Hazard Mitigation Grant Program" published February 26, 2002 PDF version. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002\_register&docid=02-4321-filed.pdf

# **Disasters and Natural Hazards Information**

#### **FEMA – Understanding Your Risks**

Step-by-step guidance on completing a local risk assessment. Provides additional on-line resources. <a href="http://www.fema.gov/fima/planning\_toc3.shtm">http://www.fema.gov/fima/planning\_toc3.shtm</a>

#### Natural Hazards Center at the University of Colorado

A "clearinghouse for information on natural hazards and human adjustments to hazards and disasters". A comprehensive source for on-line publications and periodicals and the dissemination of information. http://www.colorado.edu/hazards

#### FEMA - How to deal with specific hazards

Provides links to various hazards and information about dealing with a variety of natural hazards. http://www.fema.gov/hazards/

#### **National Oceanic and Atmospheric Administration (NOAA)**

Provides information on various projects and research the agency is engaged in. Good source for information on climate and weather.

http://www.websites.noaa.gov

National Climatic Data Center "The world's largest active archive of weather data." <a href="http://lwf.ncdc.noaa.gov/oa/ncdc.html">http://lwf.ncdc.noaa.gov/oa/ncdc.html</a>

# **Flood Related Hazards**

**National Flood Insurance Program (NFIP)** 

http://www.fema.gov/nfip

**Digital quality Level 3 Flood Maps** 

http://msc.fema.gov/MSC/statemap.htm

**Association of State Floodplain Managers** 

http://www.floods.org

**Massachusetts Coastal Zone Management** 

http://www.state.ma.us/czm

New England Floodplain and Stormwater Managers Association

http://www.nefsma.org

The Woods Hole Oceanographic Institution Sea Grant Program

www.whoi.edu/seagrant

# **Wind-Related Hazards**

**ASCE Wind Speed Maps** 

http://www.ascepub.infor.com/windload.html

**U.S. Wind Zone Maps** 

http://www.fema.gov/mit/bpat\_tsfs.htm

**Tornado Project Online** 

http://www.fornadoproject.com

**National Hurricane Center** 

http://www.nhc.noaa.gov

**Community Hurricane Preparedness Tutorial** 

http://meted.ucar.edu/hurrican/chp/hp.htm

#### Fire Related Hazards

**Firewise** 

http://www.firewise.org

**NOAA Fire Event Satellite Photos** 

http://www.osei.noaa.gov/Events/Fires

U.S. Forest Service, USDA

http://www.fs.fed.us/land/wfas/welcome.htm

**USGS** Topographic Maps

http://www.mecmcweb.er.usgs.gov/topomaps

# **Geologic Related Hazards**

#### **HAZUS**

http://www.hazus.org

#### **Building Seismic Safety Council**

http://www.bsscononline.org

#### Earthquake hazard history by state

http://www.neic.cr.usgs.gov/neis/states/states.html

#### GIS data available on earthquakes

http://geohazards.cr.usgs.gov/eq/html/genmap.html

#### **USGS** Earthquake homepage

http://quake.wr.usgs.gov

#### U.S. Geological Survey's Landslide Risk Areas

http://landslides.usgs.gov/html\_files/landslides/nationalmap/national.html

## **Determining Risk and Vulnerability**

#### **Vulnerability Assessment Tutorial**

On-line tutorial developed by the National Oceanic and Atmospheric Administration (NOAA) with step-by-step instructions on how to complete a local risk and vulnerability assessment.

http://www.csc.noaa.gov/products/nchaz/htm/mitigate.htm

### Case Study: an example of a completed risk and vulnerability assessment

http://www.csc.noaa.gov/products/nchaz/htm/case.htm

# Massachusetts Regional Planning Agencies (RPAs)

#### **Massachusetts Association of Regional Planning Agencies (MARPA)**

Provides information on MARPA, comprehensive summary pages of all 13 Massachusetts RPAs, links to RPA websites, and contact and planning region information. Use this site to find the member communities of each RPA.

http://www.pvpc.org/marpa/marpa.html#

# **General Planning Websites**

#### **American Planning Association**

http://www.planning.org

#### **PlannersWeb**

Provides city and regional planning resources.

http://www.plannersweb.com

# Mapping the Hazards - Geographic Information Systems (GIS) and Mapping

#### **MASS GIS**

Provides an introduction to, and general information about GIS, including industry and technology updates, map ordering and on-line mapping services, and free datalayer downloads.

MASS GIS homepage <a href="http://www.state.ma.us/mgis/">http://www.state.ma.us/mgis/</a>

The site for downloading datalayers <a href="http://www.state.ma.us/mgis/laylist.htm">http://www.state.ma.us/mgis/laylist.htm</a>

#### "Getting Started With GIS: A Guide For Municipalities"

A GIS needs analysis guide for communities provided by the Massachusetts Department of Housing and Community Development and MassGIS.

http://www.state.ma.us/dhcd/components/dcs/publications/gis.pdf

#### The Multi-Hazard Mapping Initiative (MMI)

Provides "A living atlas of hazards data and map services for advisory purposes supplied from a network of hazard and base map providers." An initiative of FEMA and the National Oceanic and Atmospheric Administration (NOAA), this site provides users with a search engine for finding hazards data specific to their areas of location. Data includes maps addressing flood, earthquake, windstorms, etc. <a href="http://www.HazardMaps.gov">http://www.HazardMaps.gov</a>

The National Spatial Data Infrastructure & Clearinghouse (NSDI) and Federal Geographic Data Committee (FGDC) Source for information on producing and sharing geographic data. <a href="http://www.fgdc.gov">http://www.fgdc.gov</a>

The OpenGIS Consortuim Industry source for developing standards and specifications for GIS data. <a href="http://www.opengis.org">http://www.opengis.org</a>

#### Federal Insurance and Mitigation Administration (FIMA)

Provides information on the Federal Insurance and Mitigation Administration. Lists links to additional resources.

http://www.fema.gov/fima

**Community Rating System (CRS)** Summarizes the Federal Community Rating System <a href="http://www.fema.gov/nfip/crs.htm">http://www.fema.gov/nfip/crs.htm</a>

#### **Northeast States Emergency Consortium (NESEC)**

A not-for-profit natural hazard mitigation and emergency management organization. Provides information on various hazards, funding resources, and other information. <a href="http://www.nesec.org">http://www.nesec.org</a>

NESEC's website also features the brochure, "The Power of Prevention: Taking Action Before Disaster Strikes," an excellent resource for introducing community residents to the importance of hazard mitigation. <a href="http://www.nesec.org/brochure.pdf">http://www.nesec.org/brochure.pdf</a>

# **Other On-Line Publications**

FEMA's DMA 2000, State & Local Plan Interim Criteria Mitigation Planning Workshop for Local Governments

http://www.fema.gov/fima/planning toc4.shtm

FEMA's Understanding Your Community's Risks: Identifying Hazards, And Determining Risks <a href="http://www.fema.gov/fima/planning\_toc3.shtm">http://www.fema.gov/fima/planning\_toc3.shtm</a>

# Appendix B: Massachusetts State And Federal Agency Resource List For Hazard Mitigation

(as of October 2002)



#### STATE RESOURCES

#### EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

251 Causeway Street, 9<sup>th</sup> Floor Boston, MA 02114-2104

Tel: (617) 626-1000 / Fax: 617-626-1181

Website: www.state.ma.us/envir

#### **MassGIS**

EOEA Data Center 251 Causeway Street, Suite 900 Boston, MA 02114-2104

MassGIS Assistant Director: Neil MacGaffey Tel: (617) 626-1000 / Fax: (617) 626-1249 Website: www.state.ma.us/mgis/massgis.htm

The Commonwealth's office of geographic and environmental information. Services offered include digital data distribution and map production, scanning, GPS units available for project use, guidance to cities, towns and others interested in learning about or acquiring GIS technology. Can cooperate with municipal staff or consultants on mapping projects for hazard mitigation. Provides land use data and maps (fee for some services), can scan or convert existing data.

#### Office of Coastal Zone Management

251 Causeway Street, Suite 900

Boston, MA 02114-2138 Director: Tom Skinner

Tel: (617) 626-1200 / Fax: (617) 626-1244 Website: <u>www.state.ma.us/czm/czm.htm</u>

Promotes sound management of the Massachusetts coast. Shoreline change and coastal high hazard mapping, barrier beach maps, Harbor Planning Guidelines and mooring checklist; Guidelines for Barrier Beach Management; technical assistance on natural resource protection methods for erosion and flood control.

#### Division of Conservation Services

251 Causeway Street Boston, MA 02114 Director: Joel Lerner

Tel: (617) 626-1000 / Fax: (617) 626-1180

Website: www.state.ma.us/envir/conservation/cpindex.htm

Works with landowners, municipalities and land trusts on several land preservation programs. Provides technical assistance on conservation restrictions; works with NRCS and Conservation Districts on non-point source and stream bank stabilization grant projects; provides self-help grants to Conservation Commissions to purchase land at up to 70% reimbursement; provides urban self-help grants to develop parks, playgrounds, and other open space in urban areas; works in conjunction with the MA Watershed Initiative.

#### Massachusetts Watershed Initiative

251 Causeway Street, 9<sup>th</sup> Floor Boston, MA 02114-2104

Watershed Manager: Karl Honkonen Tel: (617) 626-1138 / Fax: (617) 626-1181

Website: www.state.ma.us/envir/mwi/watersheds/htm

Manages, coordinates and integrates all activities within watersheds on a 5-year cycle of outreach, research, assessment, planning/implementation and evaluation. Involves federal, state, regional and local groups and agencies to protect and restore the environmental integrity of the state's waterways.

# Department of Environmental Management

251 Causeway Street, Suites 600 - 700

Boston, MA 02114-2104

Tel: (617) 626-1250 / Fax: (617) 626-1449

Website: www.state.ma.us/dem

#### 1. Bureau of Resource Protection

Tel: (617) 626-1371

Provides resource planning and scientific services to DEM and is responsible for implementing statewide natural, historic and water resources planning and management programs, including the state's hazard mitigation program.

#### 2. Flood Hazard Management Program

Program Manager: Richard Zingarelli

Tel: (508) 626-1406

Flood insurance (National Flood Insurance Porgram and Community Rating System administration), floodplain management technical assistance, floodplain management ordinance review, substantial damage/improvement requirements, "Handbook for Local Officials for Projects in the Floodplain", "A Coastal Homeowner's Guide to Flood proofing", retrofitting/flood proofing information, state Hazard Mitigation Plan, 404 Hazard Mitigation Grant Program administration.

#### 3. Office of Dam Safety

Devens, MA

Director: David Clark Tel: (508) 792-7716

Dam safety information, including data on high hazard dams and unsafe dams, dam construction inspections; grants for municipally owned dam repairs.

#### 4. Office of Waterways

Hingham, MA

Director: Nancy Thornton Tel: (781) 740-1600

Design, construction and grants for water dependent structures, including flood control, dredging and coastal structures.

#### 5. Office of Water Resources

Director: Mike Gildesgame

Tel: (617) 626-1371

Provides water resources engineering, planning and scientific services to DEM Forest and Parks and to communities statewide, including collection, analysis and distribution of hydrologic information for the Commonwealth's 27 river basins; and provides technical assistance and grants to municipalities for lake and pond planning and restoration and flood hazard management.

#### 6. Office of Water Resources – Lakes and Ponds Program

Coordinator: Steve Asen Tel: (617) 626-1353

Grants for protection, preservation and enhancement of lakes and ponds; "Statewide Water Management Assistance" brochure.

#### 7. Office of Natural Resources

Acting Director: Mike Gildesgame

Tel: (617) 626-1371

Land acquisition, planning, resource management planning, Area of Critical Environmental Concern (ACEC) program, greenways, bikeway planning, coastal access programs and GIS.

#### **Metropolitan District Commission**

20 Somerset Street Boston, MA 02108 Tel: (617) 727-5114

Website: www.state.ma.us/mdc/

Land acquisition programs, greenway and open space planning for Metropolitan District properties and adjacent areas, watershed protection initiatives for Metropolitan District water supply.

# **Department of Environmental Protection**

1 Winter Street Boston, MA 02108 Tel: (617) 292-5500

Website: www.state.ma.us/dep/contact.htm

#### 1. Bureau of Resource Protection

Watershed Management Division 627 Main Street, 2<sup>nd</sup> Floor Worcester, MA 01608

Tel: 508-792-7470

Supervisor: Dennis Dunn Tel: (508) 767-2874

Coordinates watershed teams to survey water quality and provide opportunities for communities to improve watershed health. Watersheds are assessed on a 5-year schedule. Administers two grant programs, the 319 Nonpoint Source Competitive Grants Program, and the 604(b) Water Quality Management Grant.

#### 2. Bureau of Resource Protection

Wetlands and Waterways Program

1 Winter Street Boston, MA 02108

Director: Lealdon Langley

Tel: (617) 292-5500 Contact: Myles Brown Tel: (617) 292-5789

Publish "Protecting Coastal Property from Major Storm Damage" brochure and, "Wetlands Report" quarterly newsletter; provides training on wetlands delineation, information on wetlands and waterways permitting; oversees stormwater management handbooks; other publications include "Storm Water Management" and "Rivers Protection Act Information".

#### 3. Division of Water Pollution Control

Title 5 Hotline: 1-800-266-1122

Information on inspections and requirements for upgrading septic systems.

#### DEPARTMENT OF FISHERIES, WILDLIFE & ENVIRONMENTAL LAW ENFORCEMENT

251 Causeway Street, 4<sup>th</sup> Floor Boston, MA 02114 - 2104

Tel: (617) 626-1540

Website: www.state.ma.us/dfwele/

#### **Riverways Program**

Riverways Director: Joan Kimball

Tel: (617) 626-1544

Provides technical assistance and outreach on river, stream and watershed protection, restoration and stewardship; assists in formation and strengthening of Adopt-A-Stream teams including technical assistance to groups conducting Shoreline Surveys.

# DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

One Congress Street

10<sup>th</sup> Floor

Boston, MA 02114 Tel: (617) 727-7001

Website: www.state.ma.us/dhcd/default/htm

(see also Housing and Urban Development under "Federal Resources")

#### **Bureau of Planning and Municipal Management**

Tel: (617) 727-7001

Information on planning policy and procedures; "Weighing your Options"; A Balanced Growth Approach" available.

#### **Division of Municipal Development**

Tel: (617) 727-7001

General information on Community Development Block Grant and related programs.

## **EXECUTIVE OFFICE OF PUBLIC SAFETY**

1 Ashburton Place, Room 2133

Boston, MA 02108 Tel: (617) 727-7775

Website: www.state.ma.us/eops

# **Massachusetts Emergency Management Agency**

400 Worcester Road

Framingham, MA 01702-5309

Disaster Recovery Manager: Cristine McCombs Tel: (508) 820-2067 / Fax: (508) 820-1404

Website: www.state.ma.us/mema

Administers post-disaster Public Assistance funds; grants manager of Hazard Mitigation Grant

Program; provides training on preparedness, mitigation, response and recovery.

#### **Board of Building Regulations and Standards**

1 Ashburton Place, Room 1301

Boston, MA 02108-1618

Technical Director: Brian Gore

Tel: (617) 727-3200 X604 / Fax: (617) 227-1754

Reviews appeals to the State Building Code; provides interpretations of code, including Section 3107,

"Flood Resistant Construction".

#### **EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION**

Website: <a href="www.state.ma.us/eotc">www.state.ma.us/eotc</a>

#### **Massachusetts Highway Department**

10 Park Plaza

Boston, MA 02116

Tel: (617) 973-7800 / Fax: (617) 973-8040

Website: www.state.ma.us/mhd

Upon written request from communities, provides assistance in improving or repairing state-owned

roads and highways.

# OFFICE OF THE SECRETARY OF THE COMMONWEALTH

William Francis Galvin State House, Room 337 Boston, MA 02133

Tel: (617) 727-7030

Website: www.state.ma.us/sec

#### **Massachusetts Historical Commission**

220 Morrissey Boulevard State Archives Building Boston, MA 02125-3314

Tel: (617) 727-8470 / Fax: (617) 727-5128

Email: mhc@sec.state.ma.us

Website: www.state.ma.us/sec/mhc/mhccon.htm

Provides technical assistance on historic preservation issues; reviews state and federal undertakings for impacts to historic and cultural resources, including Army Corps of Engineers projects; assesses damage to historic and archaeological resources; and provides emergency grant assistance for historic properties in municipal or nonprofit ownership; as office of the State Archaeologist, can

assist in evaluating effects of flood mitigation measures on archaeological sites. Provides copies of FEMA's publication "Safeguarding Your Historic Site: Basic Preparedness and Recovery Measures for Natural Disasters".

#### STATEWIDE CULTURAL RESOURCES

Massachusetts Cultural Council www.massculturalcouncil.org

New England Museums Association www.nemanet.org,

Bay State Historical League www.masshistory.org

Massachusetts Board of Library Commissioners www.mass.gov.

#### REGIONAL RESOURCES

## **REGIONAL PLANNING AGENCIES**

#### 1. Berkshire Regional Planning Commission (BRPC)

1 Fenn Street, Suite 201 Pittsfield, MA 01201

Executive Director: Nathaniel W. Karns, AICP Tel: (413) 442-1521 / Fax: (413) 442-1523 Email: BRPC@berkshireplanning.org
Website: www.berkshireplanning.org

#### 2. Cape Cod Commission (CCC)

3225 Main Street

Barnstable, MA 02630

Executive Director: Margo Fenn

Tel: (508) 362-3828 / Fax: (508) 362-3136 Email: <u>frontdesk@capecodcommission.org</u> Website: <u>www.capecodcommission.org</u>

# 3. Central Massachusetts Regional Planning Commission (CMRPC)

35 Harvard Street, 2<sup>nd</sup> Floor Worcester, MA 01609-2801

Tel: (508) 756-7717 / Fax: (508) 792-6818 Executive Director: William H. Newton

Email: <a href="mailto:cmrpc@cmrpc.org">cmrpc@cmrpc.org</a>
Website: <a href="mailto:www.cmrpc.org">www.cmrpc.org</a>

# 4. Franklin Regional Council of Governments (FRCOG)

425 Main Street

Greenfield, MA 01301

**Executive Director: Linda Dunlavy** 

Tel: (413) 774-3167 / Fax: (413) 774-3169

Email: <u>info@frcog.org</u>
Website: <u>www.frcog.org</u>

#### 5. Martha's Vineyard Commission (MVC)

P. O. Box 1447, New York Avenue

Oak Bluffs, MA 02557

Executive Director: Charles W. Clifford Acting Executive Director: Irene Fyler Tel: (508) 693-3453 / Fax: (508) 693-7894

Email: mvcommiss@adelphia.net

#### 6. Merrimack Valley Planning Commission (MVCP)

160 Main Street

Haverhill, MA 01830

Executive Director: Gaylord Burke

Tel: (978) 374-0519 / Fax: (978) 372-4890

Email: <a href="mailto:info@mvpc.org">info@mvpc.org</a>
Website: <a href="mailto:www.mvpc.org">www.mvpc.org</a>

# 7. Metropolitan Area Planning Council (MAPC)

60 Temple Place, 6<sup>th</sup> Floor

Boston, MA 02111

Tel: (617) 451-2770 / Fax: (617) 482-7185

Website: www.mapc.org

## 8. Montachusett Regional Planning Commission (MRPC)

R1427 Water Street Fitchburg, MA 01420

Executive Director: Mohammed Khan Tel: (978) 345-7376 / Fax: (978) 345-9867

Email: <a href="mrpc@mrpc.org">mrpc@mrpc.org</a>
Website: <a href="www.mrpc.org">www.mrpc.org</a>

#### 9. Nantucket Planning and Economic Development Commission (NP&EDC)

1 East Chestnut Street Nantucket, MA 02554

Executive Director: John D. Pagini, AICP Tel: (508) 228-7237 / Fax: (508) 228-7236 Website: www.nantucketcomplan.com

#### 10. Northern Middlesex Council of Governments (NMCOG)

Gallagher Terminal 1, Floor 3B

115 Thorndike Street Lowell, MA 01852

Executive Director: Robert W. Flynn Tel: (978) 454-8021 / Fax: (978) 454-8023

Email: <a href="mailto:nmcog@tiac.net">nmcog@tiac.net</a>
Website: <a href="mailto:www.nmcog.org">www.nmcog.org</a>

#### 11. Old Colony Planning Council (OCPC)

70 School Street

Brockton, MA 02401-4097

Executive Director: Pasquale Ciaramella Tel: (508) 583-1833 / Fax: (508) 559-8768

Email: <a href="mailto:ocpc@ocpcrpa.org">ocpc@ocpcrpa.org</a>
Website: <a href="mailto:www.ocpcrpa.org">www.ocpcrpa.org</a>

#### 12. Pioneer Valley Planning Commission (PVPC)

26 Central Street

West Springfield, MA 01089

Executive Director: Timothy W. Brennan Tel: (413) 781-6045 / Fax: (413) 732-2593

Email: <a href="mailto:info@pvpc.org">info@pvpc.org</a>
Website: <a href="mailto:www.pvpc.org">www.pvpc.org</a>

#### 13. Southeastern Regional Planning & Economic Development District

(SRP&EDD)

88 Broadway

Taunton, MA 02780

Executive Director: Stephen C. Smith Tel: (508) 824-1367 / Fax: (508) 823-1803

Email: <a href="mailto:info@srpedd.org">info@srpedd.org</a>
Website: <a href="mailto:www.srpedd.org">www.srpedd.org</a>

# **REGIONAL WATERSHED ORGANIZATIONS**

#### **Massachusetts Watershed Coalition (MWC)**

P.O. Box 577

Leominster, MA 01453-0577

Tel: (978) 534-0379 / Fax: (978) 534-1329

Website: www.commonwaters.org

Contact this organization for information on watershed groups in your area. This group's website also lists other local watershed associations around the state.

# **LOCAL CONSERVATION DISTRICTS**

#### Massachusetts Association of Conservation Districts, Inc. (MACD)

319 Littleton Road, Suite 205

Westford, MA 01886 Director: Liz Maguire Tel: (978) 692-9395

The MACD is a non-profit organization of Conservation Districts statewide, which acts as advocates for land users; many individual districts have plant sales and work to support the Massachusetts Envirothon. Many free sources of information on Envirothon topics are available from conservation districts across the state.

#### FEDERAL RESOURCES

## FEDERAL EMERGENCY MANAGEMENT AGENCY

Region 1 Office J.W. McCormack POCH, Room 442 Boston, MA 02109-4595 (617) 223-9500

Website: www.fema.gov

#### **Mitigation Division**

Administers National Flood Insurance Program and Community Rating System; prepares and revises flood insurance studies and maps; information on past and current acquisition, relocation and retrofitting programs; expertise in other natural and technological hazards, including hurricanes, earthquakes and hazardous materials. Financial assistance includes Hazard Mitigation Grant Program (post-disaster), Flood Mitigation Assistance Program (pre- and post-flood), Hurricane Property Protection Grants (pre-disaster) and training for local officials at Emergency Management Institute in Emmitsburg, Maryland.

#### **Response and Recovery Division**

Information on dollar amounts of past disaster assistance, including Public Assistance, Individual Assistance and Temporary Housing; information on retrofitting and acquisition/relocation initiatives. Coordinates federal disaster assistance programs, including 75% grants for mitigation projects to protect eligible damaged public, private and nonprofit facilities from future damage through the Public Assistance Program, and 100% "minimization" grants through the Individual and Family Grant Program and/or Home Repair Grants.

#### **Computer Sciences Corporation**

Corporate Headquarters 2100 East Grand Avenue El Segundo, CA 90245 Tel: (310) 615-0311

Website: www.csc.com

A private company contracted by the Federal Insurance Administration as the National Flood Insurance Program Statistical Agent, CSC provides information and assistance on flood insurance, including handling policy and claims questions, and providing workshops to lenders, insurance agents and communities.

#### **U.S. Army Corps of Engineers**

New England Division 696 Virginia Road Concord, MA 01742-2751

Chief, Special Studies Branch: John Kennelly Tel: (978) 318-8505 / Fax: (978) 318-8080

Website: www.nae.usace.army.mil

Provides 100% funding for floodplain management planning and technical assistance under the Floodplain Management Services (FPMS) program and on a 50/50 matching basis for other water resources issues under the Section 22 Planning Assistance to States program. Various flood protection measures such as beach re-nourishment, stream clearance and snagging projects, floodproofing and flood preparedness funded through other programs.

#### **DEPARTMENT OF AGRICULTURE**

#### **Natural Resources Conservation Service**

(formerly Soil Conservation Service) 451 West Street

Amherst, MA 01002 Tel: (413) 253-4350

Website: www.nrcs.usda.gov

Technical assistance to individual land owners, groups of landowners, communities, and soil and water conservation districts on land-use and conservation planning, resource development, stormwater management, flood prevention, erosion control and sediment reduction, detailed soil surveys, watershed/river-basin planning, and recreation, fish and wildlife management. Financial assistance is available to reduce flood damage in small watersheds and to improve water quality. See Local Conservation District listing under "State Resources" heading.

#### **Rural Economic and Community Development**

451 West Street, Suite 2 Amherst, MA 01002

Tel: (413) 253-4300

Website: www.rurdev.usda.gov

Technical assistance to rural areas and smaller communities in rural areas on financing public works projects; can purchase local bond issues to help obtain lower interest rates.

#### **Farm Service Agency**

445 West Street Amherst, MA 01002 Tel: (413) 253-4500

Website: www.fsa.usda.gov

Manages the Wetlands Reserve Porgram (useful in open space or acquisition projects by purchasing easements on wetlands properties) and farmland set aside programs. Can also cost-share on wetlans restoration projects (good for flood control, stormwater management and water quality).

# **DEPARTMENT OF COMMERCE**

#### **National Weather Service**

Forecast Office 445 Myles Standis

445 Myles Standish Blvd. Taunton, MA 02780

Tel: (508) 823-2262 / Fax: (508) 823-2321

Website: www.weather.gov

Prepares and issues flood, severe weather and coastal storm warnings. Staff hydrologists can work with communities on flood warning issues; can give technical assistance in preparing flood-warning plans.

#### **Economic Development Administration (EDA)**

Regional Office Curtis Center, Suite 140 South Independence Square West Philadelphia, PA 19106-3821

Tel: (215) 597-4603 / Fax: (215) 597-6669

Website: www.osec.doc.gov/eda/default.htm

Assists communities with technical assistance for economic development planning. Following disasters funding is sometimes available for programs designed to assist in the long-term economic recovery of the affected area; can include relocation and redevelopment of hazard prone businesses to a safer location.

#### **DEPARTMENT OF THE INTERIOR**

#### **National Park Service**

Rivers and Trails Conservation Assistance Regional Office 15 State Street Boston, MA 02109

Tel: (617) 223-5203 Website: <u>www.nps.gov</u>

Technical assistance with open space preservation planning; can help facilitate meetings and identify non-structural options for floodplain redevelopment.

#### Fish and Wildlife Services

Regional Office 300 Westgate Center Drive Hadley, MA 01035

Tel: (413) 253-8200 Website: <u>www.fws.gov</u>

Can provide technical and financial assistance to restore wetlands and riparian habitats through the North American Wetland Conservation Fund and the Partners for Wildlife programs.

# DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Region 1

Thomas P. O'Neill, Jr. Federal Building 10 Causeway Street, Room 301 Boston, MA 02222

Tel: (617) 994-8200 Website: www.hud.gov

#### **Community Development Block Grants**

Communities larger than 50,000 automatically receive CDBG grants; only these communities should contact HUD directly regarding CDBG. Communities smaller than 50,000 compete for funds allocated to the state Department of Housing and Community Development (DHCD) (see listing under State Resources, above: smaller communities should contact the DHCD directly at (617) 727-7001). One program objective is to improve housing conditions for low and moderate-income families: can include acquiring hazard prone homes or protecting them from possible damage. Funding is a 100% grant; can be used as a source of local matching funds for other funding programs, such as FEMA's "404" Hazard Mitigation Grant Program. Funds can also be applied toward "blighted" conditions, which is often the post-disaster condition. A separate set of funds exists for conditions that create an "imminent threat". As an example, the funds have been used in the past to replace (and redesign) bridges where flood damage eliminated police and fire access to the other side of the waterway.

#### **HOME Program**

Administered by Massachusetts Dept. of Housing & Community Development (DHCD)

Division of Private Housing

Tel: (617) 727-7765

Website: www.state.ma.us/dhcd/publications/fact\_sheets/home.pdf

Through this program, communities can receive funding for rehabilitation and new construction of housing for low-income families. Following disasters such as Hurricane Andrew and The Great Midwest Floods of 1993, supplemental Congressional appropriations provide extra disaster relief funding through both the HOME and CDBG programs.

#### **Small Business Administration**

Disaster Area 1 Office 360 Rainbow Boulevard South, 3<sup>rd</sup> Floor Niagara Falls, NY 14303

Disaster Area Director: William Leggiero

(800) 659-2955

Website: www.sba.gov/disaster

SBA has the authority to "declare" disaster areas following disasters that affect a significant number of homes and businesses, but that would not need additional assistance through FEMA. (SBA is triggered by a FEMA declaration, however.) SBA can provide additional low-interest funds (up to 20% above what an eligible applicant would "normally" qualify for) to install mitigation measurers. They can also loan the cost of bringing a damaged property up to state or local code requirements. Can be used in combination with the new "mitigation insurance" under the NFIP, or in lieu of that coverage.

# **ENVIRONMENTAL PROTECTION AGENCY**

Region 1 1 Congress Street, Suite 1100 Boston, MA 02114

Tel: (888) 372-7341 Website: <u>www.epa.gov</u>

#### **Capitalization Grants for State Revolving Funds**

Low interest loans to governments to repair, replace or relocate wastewater treatment plants damaged in floods. Does not apply to drinking water or other utilities.

#### **Clean Water Act Section 319 Grants**

Cost-share grants to state agencies that can be used for funding watershed resource restoration activities, including wetlands and other aquatic habitat (riparian zones). Only those activities that control nonpoint pollution are eligible.

#### **Wetlands Protection – State Development Grants**

Grants for states and Federally recognized Indian Tribes to develop and enhance wetland protection programs. Projects must demonstrate a direct link to increasing a state's ability to protect wetland resources. (Funds can be used for identification of, but not purchase of, flood easements.)

#### **OTHER RESOURCES**

**New England States Emergency Consortium (NESEC)** 

Lakeside Office Park 419 Main Street, Suite 5 Wakefield, MA 01880 Director: Edward Fratto Tel: (617) 224-9876 Website: www.nesec.org

NESEC conducts public awareness and education programs on natural disaster and emergency management activities throughout New England. Brochures and videotapes are available on such topics as earthquake preparedness, mitigation, and hurricane safety tips.

#### **New England Floodplain & Stormwater Management Association (NEFSMA)**

Website: www.nefsma.org

NEFSMA is modeled after the national Association of State Floodplain Managers (ASFPM), as well as a number of regional chapters around the country. NEFSMA's purpose is to promote sound floodplain and stormwater management practices, enhance cooperation among the various related private, local, state and federal agencies, and to encourage and ensure effective, new and innovative approaches to managing the region's floodplain and stormwater systems.

#### The Association of State Floodplain Managers (ASFPM)

2809 Fish Hatchery Road Madison, WI 53713

Tel: (608) 274-0123 / Fax: (608) 274-0698

Email: <a href="mailto:asfpm@floods.org">asfpm@floods.org</a>
Website: <a href="mailto:www.floods.org">www.floods.org</a>

An association of almost 1000 professionals involved in floodplain management, flood hazard mitigation and flood preparedness. ASFPM has developed a series of technical and topical research papers, and a series of Proceedings from their annual conferences. Many mitigation "success stories" have been documented through these resources and provide a good starting point for planning.

#### Floodplain Management Resource Center

Tel: (303) 492-6818 (M-F: 11:00 a.m. – 6:00 p.m. Eastern)

Free library and referral service of the ASFPM for floodplain management publications. Co-located with the Natural Hazards Center at the University of Colorado in Boulder, staff can use keywords to identify useful publications from the more than 900 flood-related documents in the library.

#### **Volunteer Organizations**

Volunteer organizations, such as the American Red Cross, the Salvation Army, Habitat for Humanity, Interfaith and the Mennonite Disaster Service and local service organizations (Lions, Elks, VFW, etc.) are often available to help after disasters. These organizations have helped others with food, shelter, clothing, money, etc. Habitat for Humanity and the Mennonite Disaster Service provide skilled labor to help rebuild damaged buildings incorporating mitigation or floodproofing concepts. The offices of individual organizations can be contacted directly, or the FEMA Regional Office may be able to assist. Most of these organizations can be found on the internet.

#### **Flood Relief Funds**

After a disaster, local businesses, residents and out-of-town groups often donate money to local relief funds. They may be managed by the local government, one or more local churches or an ad hoc committee. No government disaster declaration is needed. Local officials should recommend that the funds be held until an applicant exhausts all sources of public disaster assistance. That would allow the funds to be used for mitigation and other projects that cannot be funded elsewhere.

# Appendix C: Action Examples

Examples of mitigation tools and actions used in Massachusetts and other states include:

The Town of Braintree publishes a brochure on flood hazards and flood mitigation activities in the community, and distributes it in utility bills as part of its activities under the Community Rating System. *Contact: John Maximuk, CRS Coordinator, Principal Planner, Braintree Town Hall, One JFK Memorial Drive, Braintree, MA 02184 Tel.* (781)794 – 8234.

The Town of Tewksbury has used cluster zoning techniques to minimize impacts of subdivision development on floodplain and wetlands resources. Tewksbury also carries out activities for credit under the Community Rating System. Contact: Loretta Miggos, Assistant CRS Coordinator, Tewksbury Building Department, 999 Whipple Road, Tewksbury, MA 01876 Tel. (978) 640-4430.

The City of Quincy and the Town of Chatham have used Hazard Mitigation Grant Program funds to elevate and otherwise floodproof residential structures. Matching funds have been provided using Community Development Block Grant loans and grants (in Quincy only) and homeowner contributions.

Contact: Angelito Santos, Principal Planner, Quincy Department of Planning and Community Development, 1305 Hancock Street, Quincy, MA 02169 Tel. (617) 376-137; or Margaret Swanson, Director, Chatham Planning and Development, 261 George Ryder Road, Chatham, MA 02633 Tel. (508) 945-5168; or DEM Flood Hazard Management Program, 251 Causeway St. Suite 700,,Boston, MA 02114 (617) 626-1350.

The Towns of Falmouth and Scituate have used a combination of National Flood Insurance Program funds (under the now defunct Section 1362 provision) and Hazard Mitigation Grant Program funds to acquire and relocate or demolish flood-damaged property. The land is owned by the community and maintained as open space. *Contact: Christina Dolen, 300 Committee, 101 Town Hall Square, P.O. Box 546, Falmouth, MA* 02541 Tel. (508) 540-0876; Vinnie Kalishes, Conservation Agent, 600 Chief Justice Cushing Highway, Scituate, MA 02066 Tel. (781)545 - 8721; FEMA Region I Mitigation Division, Tel. (617) 223-9561; or DEM Flood Hazard Management Program, , 251 Causeway St. Suite 700,, Boston, MA 02114 (617) 626-1350..

The Town of Marshfield used Hazard Mitigation Grant Program funds to retrofit a wastewater treatment plant to prevent flood damages and water pollution. *Contact: Marshfield Town Administrator*, 870 Moraine Street, Marshfield, MA 02050 Tel. (617) 834-5563

The Town of Billerica has developed a comprehensive permitting guide for project proponents that includes floodplain management concerns. *Contact: Billerica Town Planner, 365 Boston Road, Billerica, MA 01821 Tel.* (978) 671-0962

The City of Fitchburg uses a digital floodplain mapping overlay on their computerized planning maps to help calculate area in the floodplain and to check on whether or not buildings are in a flood zone. *Contact: Planning Coordinator*, *City of Fitchburg*, 718 Main Street, Fitchburg, MA 01420 Tel. (978)345-1018.

The Town of Hadley has a floodplain district zoning bylaw which prohibits new residential construction in the floodplain. Several homeowners with older structures in the floodplain have elevated their homes with technical assistance from the Building Inspector. *Contact: Timothy Neyhart, Hadley Building Inspector, 100 Middle Street, Hadley, MA 01035 Tel. (413) 586-7274* 

The Riverways/Adopt-A-Stream Program uses action schedule matrices and shoreline survey matrices in several publications designed to help citizens assess pollution and other problems along rivers that can also be useful in assessing flood hazards and developing implementation schedules. Publications available include *Adopt-A-Stream Shoreline Survey: A Stream Team Monitoring Project: Leaders Manual*, May 1996, and *Riverways Community Guide: Strategies for Local River Protection Bylaws*, June 1993. *Contact: Joan Kimball, Adopt-A-Stream - Coordinator, DFWELE Riverways Program, 251 Causeway St. Sutie 400, Boston, MA 02114 (617)626 - 1540* 

Connecticut developed an early flood warning system using state and Hazard Mitigation Grant Program

funds. The system is based on automated rainfall and river gages linked to a computer system that analyzes the data and alerts state staff of potential flood conditions. Several towns also have local systems in place linked to the state system. *Contact: Alphonse LeTendre or Douglas Glowacki, CT DEP, 79 Elm Street, Hartford, CT 06106 Tel.* (860) 424-3706

Rhode Island Emergency Management Agency and the University of Rhode Island Coastal Resources Center have been developing tools to assist local governments in assessing hazards and planning for implementation of disaster reduction activities. Tools include a Risk Assessment Matrix and a Mitigation Decision-Making Matrix that can be used by community officials to identify problems and decide on the most appropriate actions to solve them. *Contact: Pam Pogue, National Flood Insurance Program Coordinator, Rhode Island Emergency Management Agency, (401)* 946 – 9996.

The Federal Emergency Management Agency publishes a number of manuals and Technical Bulletins explaining flood proofing techniques, retrofitting for residential structures, coastal construction, and other mitigation techniques. FEMA also conducted a pilot flood minimization program to floodproof homes in Massachusetts following the 1991 northeast storm and has documentation available on techniques and costs. Contact: FEMA Region I Mitigation Division, J.W. McCormack POCH Building, Room 462, Boston, MA 02109 Tel. (617) 223-9561.

The U.S. Army Corps of Engineers has a number of publications available on flood mitigation techniques, including Flood Proofing: Techniques, Programs, and References, February 1991, and Flood Proofing: How to Evaluate Your Options, July 1993. Contact: John Kennelly, USACE, New England District, 696 Virginia Road, Concord, Ma 01742-2731 (978) 318-8111.

# TOWN OF MARSHFIELD - COASTAL ADVISORY COMMITTEE FLOOD LOSS REDUCTION QUESTIONNAIRE

(All information given here will be confidential and tabulated for finding solutions for flood loss prevention)

N	AME					
A	DDRESS					
	ELEPHONE					
	Is your home /business located in t			2	No	
	If Yes, select correct zone.	V A	B or C	U	nknown	
2.	If Yes, select correct zone.  Do you have Flood Insurance?	Yes	N	No		
	If Yes, select number of years  2 yrs or less  10	that applies.				
			12			
3.	Have you experienced flood dama					
	If Yes, please supply the following of leases:	owing:	100000 2	100000	4 00 0000	
	Number of losses:  13 Were you insured for the losses?	1 10SS 2	10sses 3	iosses	4 or more	
1	Ware you insured for the lesses?	Voc	13 N	Jo	Somo	
4.	were you misured for the losses?	17	18	10	Some	
	Select appropriate \$\$\$ range	for total losses wh	10 Lether paid for h	v Flood I	nsurance SRA	Loans
	an managanal financina		-	-	iisurance, SDA	Loans,
	Less than \$1,000 \$10-\$20,000 \$1,000-\$2,500 \$20-\$30,000 \$1,000-\$5,000 \$25 \$2,500-\$5,000 \$30-\$40,000 \$5,000-\$10,000 \$40-\$50,000 \$		\$50-\$75	000		
	20 24		<u></u> \$50-\$75,	000		
	\$1,000-\$2,500 \$20-\$30,000		\$75-\$100	000		
	21 25		29 \$75 \$100	,,000		
	\$2 500-\$5 000 \$30-\$40 000		\$100,000	or more		
	${22}$ ${26}$	ρου φτο <b>,</b> ουσ	30 \$100,000	or more		
	\$5,000-\$10,000	\$40-\$50 000	20			
	${23}$ ${}$ $$	γ.ο φεο <b>,</b> οσο				
5.	Did you receive a Small Business	Loan for any loss	? Yes	32	No	
6.	Select the best description for your	· loss(es).				
	Flooded utilities in basen	Flooded 1st floor of dwelling				
	Flooded 1st and 2nd floo	rs W	aves flooded, c	ausing da	mage	
	35	36		C	C	
7.	The flooding of my dwelling could	l be corrected or r	educed by:			
	Removing utilities from l		s furnace, electr	rical, wate	er heater, washe	r/dryer)
	Do you have space to relocate	e those items?	Yes	39	No	
	Elevating a portion of the					
8.	What percent (%) of the flood dam25%25-50%	age you have exp 50-75% 48			eted by the steps	above?
_						1 0
9.	Would you be willing to get estimate		correcting the	1100d pro	olem with your	nome?
	Yes 1	NO				

10. If f1			e, what percent w		. •		iffordable to
			ce your flood loss		owest percer	itage.	
	0-20%	21-30%	31-50%	51-70%	71-90	% 91-1	100%
	52	53	31-50% 54	55		57	
11. Wo	uld you partici	pate in a loss red	uction program?	Yes		_ No	
			1 0	58	59		
12. And	other way to red	duce flood losses	s is to take major	protective meas	ures. Which	would be best	for your
		ng problems?	3	•			J
		arger/newer seav	vall				
	60	8					
		dunes at beache	es				
	61						
	Build ber	ms (earthen wall	s) along salt mars	sh			
	62	(••••••••••••••••••••••••••••••••••••••	s, wieng suit muis	,- <u></u>			
	~ <b>_</b>	vard to an elevat	ion that keeps wa	ter from home			
	63		_				
	Other						
	64						
13 I/W/	e think the loss	reduction progr	am for homeown	ers should be no	irsued by the	town	
13.1/ **	Yes	N		ers should be pe	irsuca by the	town.	
	65	66	10				
14 I w		informed of futu	re meetings	Yes		No	
14.1 W	outa like to be i	imornica or rata	ie meetings.	67 Tes	68	_ 110	
15 I xv	ould be willing	to call other hor	neowners about f			N SO	
13.1 W	Yes	N		uture meetings	ii asked to de	30.	
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16 I on	~ -	p the committee					
10. 1 an	ii wiiiiig to nei	p the committee	•				
	Name		Addres				Telephone
17 Dloc		over von would	Address like about this pro		vithing also r		
17. F16			nterested in for fu		lytilling else i	erative to moot	i issues, and
	topics	you would be if	nerested in for fu	ture meetings.			

# **Sample Cover Letter Requesting Plan Review**

Date				
[Agency] [Street Address] [City, State, Zip Code]				
Dear Program Director:				
Enclosed for your review is a draft copy of the town/city of				
The plan identifies actions based on public input and discussion. These actions have been prioritized based on how well these actions meet our community's needs and on the town/city's ability to implement them. Since your agency/organization provided technical assistance and input to the development of this plan, or has developed other plans which may be related to our plan, this draft copy is provided for your review. Please provide any comments by [date] to the Board/Council at [town address].				
Your assistance in the review of this Multiple Hazard Mitigation Plan is greatly appreciated.				
Sincerely yours,				
Name City Council/Board of Selectmen/Planning Board				

# Appendix D: Existing Federal and State Protection Systems

#### **National Flood Insurance Program:**

Nearly all of Massachusetts' 351 communities participate in the National Flood Insurance Program (NFIP). This program is a direct agreement between the federal government and the local community that flood insurance will be made available to residents in exchange for community compliance with minimum floodplain management regulations. Communities participating in the NFIP must:

- Adopt the Flood Insurance Rate Maps as an overlay regulatory district;
- Require that all new construction or substantial improvement to existing structures in the flood hazard area will be elevated or (if non-residential) floodproofed to the flood level identified on the maps;
- Require design techniques to minimize flood damage for structures being built in high hazard areas, such as floodways or velocity zones.

In Massachusetts, most of these requirements are contained in existing regulations, such as the State Building Code and the Wetlands Protection Act Regulations. Those land use requirements which are not contained in existing regulations are generally incorporated into a community's zoning bylaw or ordinance. In return for community adoption of these standards, any structure in that community is eligible for protection by flood insurance, which covers property owners from losses due to inundation from surface water of any source. Coverage for land subsidence, sewer backup and water seepage is also available subject to the conditions outlined in the NFIP standard policy. (See Appendix A, FEDERAL RESOURCES, for contacts regarding insurance coverage and purchase.) Since homeowners' insurance does not cover flooding, a community's participation in the NFIP is vital to protecting property in the floodplain as well as essential to ensure that federally-backed mortgages and loans can be used to finance floodprone property.

#### **Community Rating System:**

A voluntary initiative of the NFIP, the Community Rating System (CRS), was developed to encourage communities to perform activities that exceed the minimum NFIP floodplain management standards. If a community participating in CRS performs activities including maintaining records for floodplain development, publicizing the flood hazard, improving flood data, and floodplain management planning, then the flood insurance premiums paid by policy holders in the community will be reduced. Developing a flood mitigation plan will help communities gain additional credit under CRS.

#### Flood Mitigation Assistance Program (FMA) & Increased Cost of Compliance (ICC):

Two programs that were authorized under the National Flood Insurance Reform Act of 1994 include the Flood Mitigation Assistance (FMA) program and a provision for increased cost of compliance (ICC) coverage. FMA makes grants available on a pre-disaster basis for flood mitigation planning and activities, including acquisition, relocation and retrofitting of structures. FMA grants for mitigation projects will be available only to those communities with approved hazard mitigation plans. ICC coverage has recently been implemented for all new NFIP policies and renewals and is intended to be "mitigation insurance" to allow homeowners whose structures have been repeatedly or substantially damaged to cover the cost of elevation and design requirements for rebuilding with their flood insurance claim up to a maximum of \$20,000. For further information on the FMA program or ICC coverage contact FEMA Region I at (617) 223-9561.

#### **Coastal Barrier Resources Act:**

Administered by the U.S. Fish and Wildlife Service, this program has mapped public and private land identified as undeveloped coastal barrier areas. These areas may be denoted as "Otherwise Protected Areas" if they are owned by public entities. In the Coastal Barrier areas shown on FEMA's Flood Insurance Rate Maps, structures newly built or substantially improved after the date shown on the maps are ineligible for federal flood insurance. This serves to restrict new development in these areas because the purchase of flood insurance is required to obtain federally-backed mortgages and improvement loans for structures located in Special Flood Hazard Areas.

#### **State Barrier Beaches:**

Your community may have areas of barrier beaches, defined in the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.29) as "a narrow, low-lying strip of land generally consisting of coastal beaches and coastal dunes extending roughly parallel to the trend of the coast, separated from the mainland by a narrow body of water or a marsh system." The regulations applying to these areas are enforced by the local Conservation Commission and the Department of Environmental Protection (DEP). These regulations restrict alteration of the beach and/or dunes and the construction of coastal engineering structures. New or substantially reconstructed buildings generally must be on open pilings or columns in these areas. State Executive Order 181 prohibits the use of state or federal funds for construction which encourages growth and development on barrier beaches. The Massachusetts Coastal Zone Management Office has maps available for both state and federally-designated barrier beaches, as well as copies of Executive Order 181.

#### **Warning Systems and Emergency Operations Plans:**

Your community may have a flood warning system in place, and should have a plan for response to flooding. In addition, the Massachusetts Emergency Management Agency (MEMA) has offices throughout the state that maintain area-wide plans for flood events.

#### **Evacuation Plans and Systems:**

Your community's Emergency Operations Center should have evacuation plans in place. For communities near a nuclear power plant, such as Plymouth Yankee or Rowe, evacuation plans are required, and may also be used for flood evacuation. MEMA area office in your region may have additional evacuation plan information.

#### **Land Use Restrictions:**

There are several federal and state regulations that serve to restrict land use in certain areas that may help reduce flood hazard vulnerability. If your community has open land owned by the state or federal government, examine what restrictions are placed on its development. In addition, the state Wetlands Protection Act regulates the development of all lands identified as significant to the protection of resources identified in the Act. Section 3107.0 of the State Building Code provides specific design guidelines that must be met in flood hazard areas, which, while they do not prevent development, ensure that only structures that meet safety standards are built.

#### **Septic Systems:**

If there are areas in the community not served by a public sewer system, state septic system regulations influence development and may be a consideration for mitigation alternatives that include rebuilding and elevation of structures. The Massachusetts septic system regulations, known as Title 5 and found in 310 CMR 15.000, set standards for the siting, construction, inspection, upgrade, and expansion of onsite sewage treatment and disposal systems and for the transport and disposal of sewage. Specific design requirements must be met for any construction in coastal velocity zones or river floodways. These regulations are enforced by the local Board of Health and DEP. Generally, an inspection of a septic system is required if there is a change in use of the structure, an increase in flow, or a failed system. Limited inspections are required if the footprint of the structure is being changed. Upgrades are required by the state if an inspection reveals a failed system. However, local regulations may be more restrictive than state requirements, requiring inspections or upgrades in other cases.

#### **Economic/Community Development:**

There may be programs existing to help flood proof homes using Community Development Block Grant funds. There may be housing assistance programs in the community that can be used following a major flood, achieving both the objectives of reducing flood damages and improving the community's housing stock. See Appendix A, FEDERAL RESOURCES, for more information.

#### **Hazard Mitigation Grant Program (HMGP)**

Also known as the 404 Program or HMGP, this program is available only after a federally-declared disaster occurs. It provides 75/25 matching grants on a competitive basis to state, local and tribal governments, as well as certain non-profit organizations. The grants are specifically directed toward reducing future hazard losses, and can be used for projects protecting property and resources against the damaging effects of floods, earthquakes, wind, and other hazards. Specific activities encouraged under HMGP, and which have been used in Massachusetts in the past, include acquiring and demolishing damaged structures to turn the land over to the community for open space or recreational use; relocating damaged or damage-prone structures out of the hazard area; and retrofitting properties to resist the damaging effects of disasters. Retrofitting can include wet- or dry-flood proofing, elevation of the structure above base flood elevation, elevation of utilities, or proper anchoring of the structure.

# Appendix E: Responding to Opportunities

Some actions are best achieved by taking advantage of opportunities as they arise. Opportunities to advance flood reduction projects include:

- Funding that suddenly becomes available toward the end of the municipal, state or federal fiscal year
- Heightened public interest following a disaster event in a neighboring state or community, or even after a small "nuisance" disaster event
- A major disaster that affects your community

If these situations arise, you may find projects which had been placed lower on your priority list due to lack of interest being discussed again with renewed attention. Your plan, with its action priorities, will make it much easier to access available funding or new grant programs because your plan already documents the need for a multiple hazard reduction project.

In order to fully take advantage of these opportunities, and to recover quickly from a major disaster event, it is vital for community officials to be prepared to respond, to handle disaster assistance requirements, to manage reconstruction wisely, and to provide accurate information to the public.

#### Take Advantage of Year-End Money

- Make your priority projects known to the local, state, or federal agencies that may become funding sources.
- Assign a team member to track information on new federal, state, and regional grant programs.
- Examine how a project could be broken into parts that could be quickly completed (for example, it's May 1 and you have until June 30, the end of the state fiscal year, to complete a project).

# **Take Advantage of Heightened Public Interest**

- Contact the Massachusetts Emergency Management Agency to coordinate local workshops around statewide weather-related events, such as MEMA's Public Safety Fair, Statewide Emergency Management Conference, Hurricane Awareness Week or other similar events.
- Prepare press releases to be disseminated to local media following a publicized disaster or local nuisance flood, describing some alternatives to mitigate flooding.

# Take Advantage of Post-Disaster Recovery

Prepare for post-flood period by determining local responsibilities including:

- Response activities: Flood warning, evacuation, and utility restoration.
- Damage assessments: Public infrastructure, including roads, bridges, seawalls, public buildings and utilities; private property, including residences and businesses; and environmental resources, such as water supply, salt marshes, dunes.
- Managing disaster assistance: Who will negotiate damage amounts and needed repair with state and federal disaster officials? Who's responsible for paperwork and projects? Who will consider possible mitigation activities during repair of public infrastructure?

Determine policies and processes for managing reconstruction, including:

- Building Condition Assessment: Who will make the initial assessments of damage? The Building Department can enlist volunteers, or call on mutual aid from surrounding communities.
- Regulatory Procedures: Establish community permitting procedures for reconstruction. Refer to the Massachusetts Department of Environmental Protection's brochure, *Protecting Coastal Property from Major Storm Damage*.

- Determining Substantial Damage: What procedure will be used for determining whether a structure has been damaged 50% or more of its market value as this will trigger elevation requirements? A guide to market value determination can be found in the DEM Flood Hazard Management Program's *Handbook for Local Officials for Projects in the Floodplain*.
- Contractor Quality Control: Prepare information on how to find a contractor. Develop a list of qualified contractors who work on elevation and flood proofing projects. Contact Executive Office of Consumer Affairs at (617) 727-7780 and request the "Consumer's Guide to Home Improvement Contracting."

Prepare to disseminate post-disaster public information, including the following topics:

- The recovery process: Communicate who's doing what to recover at the local and state levels. Include information about water quality, location and hours of Disaster Assistance Center, building inspection services, utilities, trash pickup, notices of any meetings.
- Regulations that must be met during repair and reconstruction: Communicate to the public your agreed-upon regulatory procedures, including the substantial damage rule, the need for permits, rules on emergency repairs. Copies of *Repairing Your Flooded Home* are available from FEMA. Information on insurance claims adjustment, cleanup and reconstruction, and how to find a qualified contractor are important.
- Mitigation guidance: Let people know why they should mitigate: they can take advantage of the opportunity during reconstruction, and may be able to get funding. Mitigation actions during recovery can include wet flood proofing, elevation, raising utilities, developing a family flood response plan, purchasing insurance, using acquisition or relocation programs.
- Where to get help: Communicate where and how to obtain financial assistance, how to use the Disaster Assistance Center, and what to do about drinking water or utility problems. Use all available ways of getting the word out, such as: -press releases; briefings; websites; contractor education; city/town telephone hotline; cable tv; -handbooks/manuals; community newsletter; technical assistance tables at open houses; city/town hall; Disaster Assistance Centers; volunteer groups; and hardware stores.